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ADDITIONAL EVIDENCE FOR FIVE AS THE BASIC CHROMOSOME NUMBER OF THE ANDROPOGONEAE

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Because of the meager amount of information available on the cytology, genetics, and comparative morphology of the grass tribe Andropogoneae, it has not been possible to state with any great amount of assurance what the phylogenetic lines of development are for the tribe. From the cytotaxonomic point of view it is of considerable importance to know what the basic chromosome numbers are, how they originated, and their significance in establishing phylogenetic trends.

Several basic numbers have been suggested for the tribe during the past twenty-five years. Avdulov (1931) found 2n = 36 from his studies of Miscanthus floridulus Warb (as M. japonicus) and suggested nine as the basic number for the tribe. Although there is some doubt about the number of this species, since Bremer (1934) has recorded 2n = 38, there is no question but that nine is the haploid number for several species in the tribe, but whether it is primitive or derived is not established. Seven has also been proposed (Moriya and Kondo, 1950), as well as six (Janaki-Ammal, 1940) but both are rare and there are no diploid species known with either of these numbers. There are also several higher numbers recorded but, for the most part, they are more easily explained as amphiploids involving species with different chromosome numbers. By far the most common numbers recorded for the tribe are multiples of ten, or five (Darlington and Janaki-Ammal, 1945; Delay, 1951).

Apparently the first known case of n = 5 was recorded by